CLAIMS

1. An operation input device for a vehicle, characterized by comprising:

an operation input part receiving an operating force;

an active reaction part generating, against an applied operating force, a reaction by an electrical control in the operation input part; and

an active reaction releasing part opening a force transmission route between the active reaction part and the operation input part.

2. The operation input device for a vehicle according to Claim 1, characterized by further comprising a passive reaction part generating, against an applied operating force, a reaction by substance properties and/or structure in the operation input part, wherein the reaction by the passive reaction part is greater than the reaction by the active reaction part.

3. The operation input device for a vehicle according to Claim 1, characterized by further comprising an active reaction part normal determination part, wherein when the active reaction part normal determination part detects a trouble of the active reaction part, a force transmission route between the active reaction part and the operation input part is opened by the active reaction releasing part.

4. The operation input device for a vehicle according to Claim 3, characterized in that, when the

active reaction part normal determination part detects a trouble of the active reaction part, an alarm is generated.

5. The operation input device for a vehicle according to Claim 3, characterized in that a deviation of the operating force applied to the operation input part from a prescribed range determined on a basis of an operating width or an operating speed of the operation input part, is included in criteria for the active reaction part normal determination part detecting a trouble of the active reaction part.

6. The operation input device for a vehicle according to Claim 1, characterized by further comprising:

an operation information detection part detecting operation information of the operation input part; and

a transmission part transmitting the detected operation information to a vehicle system.

7. The operation input device for a vehicle according to Claim 6, characterized in that the operation information detected by the operation information detection part includes at least one of operating width, operating speed and operating force of the operation input part.

8. The operation input device for a vehicle according to Claim 6, characterized in that, when an operating width or an operating speed of the operation

input part cannot be detected, operation information is calculated based on an operating force applied to the operation input part, and transmitted to the vehicle system.

9. The operation input device for a vehicle according to Claim 6, characterized in that, when a trouble of the active reaction part is detected, operation information is calculated based on an operating force applied to the operation input part, and transmitted to the vehicle system.

10. The operation input device for a vehicle according to Claim 6, characterized in that, when a trouble of the active reaction part is detected, an operation applied to the operation input part is detected by a switch and operation information is calculated based on the switch information detected and transmitted to the vehicle system.

11. The operation input device for a vehicle according to Claim 3, characterized by further comprising: a passive reaction part generating, against an applied operating force, a reaction by substance properties and/or structure in the operation input part, wherein when a reaction to be generated against the operating force applied to the operation input part can be implemented by the passive reaction part alone, a force transmission route between the active reaction part and the operation input part is opened by the active reaction releasing part.

12. An operation input device for a vehicle, characterized by comprising:

a brake pedal one end of which is attached rotatably around a rotation axis and which receives an operating force at another end thereof and thereby rotates;

an operation input detection part detecting an operating amount and/or an operating force applied to the brake pedal;

a passive reaction part generating, against the operating force applied to the brake pedal, a reaction by substance properties and/or structure in the brake pedal;

an active reaction part generating, against the operating force applied to the brake pedal, a reaction by an electrical control in the brake pedal; and

an active reaction releasing part opening a force transmission route between the active reaction part and the operation input part.

13. The operation input device for a vehicle according to Claim 12, characterized by further comprising an active reaction part normal determination part, wherein when the active reaction part normal determination part detects a trouble of the active reaction part, a force transmission route between the active reaction part and the operation input part is opened by the active reaction releasing part.

14. The operation input device for a vehicle according to Claim 12, characterized in that the active reaction part is an electric motor arranged in the rotation axis so as to be capable of transmitting a torque.

15. The operation input device for a vehicle according to Claim 12, characterized in that the passive reaction part is a spring mechanism generating a displacement according to a rotation of the brake pedal.

16. The operation input device for a vehicle according to Claim 12, characterized in that the active reaction releasing part is a clutch mechanism arranged between the active reaction part and the brake pedal.

17. A vehicle control apparatus controlling an operation input device for a vehicle comprising:

an operation input part receiving an operating force;

an active reaction part generating, against an applied operating force, a reaction by an electrical control in the operation input part; and

an active reaction releasing part opening a force transmission route between the active reaction part and the operation input part, wherein when a trouble of the active reaction part is detected, the active reaction releasing part is controlled to open a force transmission route between the active reaction part and the operation input part.